

What is claimed is:

1. A substantially purified human DnaJ-like-protein comprising the amino acid sequence of SEQ ID NO:1 or fragments thereof.
2. An isolated and purified polynucleotide sequence encoding the human DnaJ-like protein of claim 1 or fragments or variants of said polynucleotide sequence.
3. A composition comprising the polynucleotide sequence of claim 2.
4. A polynucleotide sequence which hybridizes under stringent conditions to the polynucleotide sequence of claim 2.
5. A polynucleotide sequence which is complementary to the polynucleotide sequence of claim 2 or fragments or variants thereof.
6. An isolated and purified polynucleotide sequence comprising SEQ ID NO:2 or fragments or variants thereof.
7. A composition comprising the polynucleotide sequence of claim 6.
8. A polynucleotide sequence which is complementary to the polynucleotide sequence of claim 6.
9. An expression vector containing at least a fragment of the polynucleotide sequence of claim 2.
10. A host cell containing the vector of claim 9.
11. A method for producing a polypeptide comprising the amino acid sequence of SEQ ID NO:1, or a fragment thereof, the method comprising the steps of:

- a) culturing the host cell of claim 10 under conditions suitable for the expression of the polypeptide; and
- b) recovering the polypeptide from the host cell culture.

5        12. A pharmaceutical composition comprising a substantially purified human DnaJ-like protein having the amino acid sequence of SEQ ID NO:1 in conjunction with a suitable pharmaceutical carrier.

10        13. A purified antibody which specifically binds to the polypeptide of claim 1.

14. A purified agonist which modulates the activity of the polypeptide of claim 1.

15. A purified antagonist which decreases the effect of the polypeptide of claim 1.

15        16. A pharmaceutical composition comprising the antagonist of claim 14 in conjunction with a suitable pharmaceutical carrier.

20        17. A method for treating cancer comprising administering to a subject in need of such treatment an effective amount of the pharmaceutical composition of claim 16.

18. A method for treating an immune disorder comprising administering to a subject in need of such treatment an effective amount of the pharmaceutical composition of claim 16.

25        19. A method for treating or preventing tissue damage comprising administering to a subject in need of such treatment an effective amount of the pharmaceutical composition of claim 12.

30        20. A method for detecting a polynucleotide which encodes human DnaJ-like protein in a biological sample comprising the steps of:

- a) hybridizing the polynucleotide of claim 8 to nucleic acid material of a biological sample, thereby forming a hybridization complex; and
- b) detecting said hybridization complex, wherein the presence of said complex correlates with the presence of a polynucleotide encoding human DnaJ-like protein in said biological sample.

21. The method of claim 20 wherein the nucleic acid material is amplified by the polymerase chain reaction.

22. A substantially purified human DnaJ-like-protein comprising the amino acid sequence of SEQ ID NO:3 or fragments thereof.

23. An isolated and purified polynucleotide sequence encoding the human DnaJ-like protein of claim 22 or fragments or variants of said polynucleotide sequence.

24. A composition comprising the polynucleotide sequence of claim 23.

25. A polynucleotide sequence which hybridizes under stringent conditions to the polynucleotide sequence of claim 23.

26. A polynucleotide sequence which is complementary to the polynucleotide sequence of claim 23 or fragments or variants thereof.

27. An isolated and purified polynucleotide sequence comprising SEQ ID NO:4 or fragments or variants thereof.

28. A composition comprising the polynucleotide sequence of claim 26.

29. A polynucleotide sequence which is complementary to the polynucleotide sequence of claim 27.

30. An expression vector containing at least a fragment of the polynucleotide sequence of claim 23.

31. A host cell containing the vector of claim 30.

32. A method for producing a polypeptide comprising the amino acid sequence of SEQ ID NO:3, or a fragment thereof, the method comprising the steps of:

a) culturing the host cell of claim 31 under conditions suitable for the expression of the polypeptide; and

b) recovering the polypeptide from the host cell culture.

33. A pharmaceutical composition comprising a substantially purified human DnaJ-like protein having the amino acid sequence of SEQ ID NO:3 in conjunction with a suitable pharmaceutical carrier.

34. A purified antibody which specifically binds to the polypeptide of claim 22.

35. A purified agonist which modulates the activity of the polypeptide of claim 22.

36. A purified antagonist which decreases the effect of the polypeptide of claim 22.

37. A pharmaceutical composition comprising the antagonist of claim 35 in conjunction with a suitable pharmaceutical carrier.

38. A method for treating cancer comprising administering to a subject in need of such treatment an effective amount of the pharmaceutical composition of claim 37.

39. A method for treating an immune disorder comprising administering to a subject in need of such treatment an effective amount of the pharmaceutical composition of claim 38.

40. A method for treating or preventing tissue damage comprising administering to a subject in need of such treatment an effective amount of the pharmaceutical composition of claim 33.

5 41. A method for detecting a polynucleotide which encodes human DnaJ-like protein in a biological sample comprising the steps of:

- a) hybridizing the polynucleotide of claim 29 to nucleic acid material of a biological sample, thereby forming a hybridization complex; and
- b) detecting said hybridization complex, wherein the presence of said complex correlates with the presence of a polynucleotide encoding human DnaJ-like protein in said biological sample.

10 42. The method of claim 20 wherein the nucleic acid material is amplified by the polymerase chain reaction.

15 Add B<sup>1</sup>

Add C<sup>4</sup>